

What is claimed is:

1 1. A method of producing a background image representing data comprising  
2 the steps of:

3 producing a first encoding of the data into a first binary array;

4 producing a second encoding of the data into a second binary array;

5 representing the first binary array as a first set of modules of a first size on  
6 nodes of a first lattice;

7 representing the second binary array as a second set of modules of a  
8 second size, which is smaller than the first size on nodes of a second lattice;

9 combining the first and second sets of modules; and

10 printing the first and second sets of modules.

1 2. The method claimed in claim 1, further including the step of:

2 superimposing graphic material on the modules before printing.

1 3. The method claimed in claim 2, wherein the graphic material is a postal  
2 indicia.

1 4. The method claimed in claim 1, wherein the modules on the first lattice  
2 and the modules on the second lattice do not overlap.

1 5. A method for producing a composite image comprising the steps of:  
2 producing a first image and a second image that embeds information in  
3 the first image;  
4 representing information contained in the second image by a two-  
5 dimensional bar code;  
6 filtering the two-dimensional bar code with a spreading algorithm that  
7 scrambles the information represented by the two-dimensional bar code;  
8 splitting the filter bar code into an equal first part and an equal second  
9 part, wherein each first part and each second part will contain an upper portion  
10 and a lower portion such that the lower portion of the first part and the upper  
11 portion of the second part will be white or empty space;  
12 applying a spreading algorithm to the first part and second part to further  
13 hide the information in the first and second parts;  
14 expanding the first and second parts over the entire image that is going to  
15 be printed; and  
16 printing the first and second parts over the first image to produce an image  
17 containing hidden information.

1 6. The method claimed in claim 5, wherein the first image is a postal indicia.

1 7. The method claimed in claim 5, wherein the first and second images are  
2 printed on a medium.

1 8. The method claimed in claim 5, wherein:  
2 at each location in which information from the first parts is going to be  
3 printed, the printed information will be a printed pixel of a specified dimension,  
4 and  
5 at each location in which information from the plurality of second parts is  
6 going to be printed, the printed information will be a printed pixel of a specified  
7 dimension that differs from the pixels printed in the first parts.

1 9. The method claimed in claim 5, wherein when the first and second images  
2 are scanned and printed, the printed pixels of specified dimensions in the first  
3 and second parts will become larger.

1 10. The method claimed in claim 9, wherein the change in size of the printed  
2 pixels of specified dimensions in the first and second parts is detectable by the  
3 unaided human eye.

1 11. The method claimed in claim 9, wherein the change in size of the printed  
2 pixels of specified dimensions in the first and second parts is detectable by a  
3 scanner.

1 12. The method claimed in claim 5, further including the steps of:  
2 photocopying the first and second images; and  
3 noticing a change in appearance of the second image.

1 13. The method claimed in claim 5, further including the steps of:  
2 scanning the first and second images; and  
3 noticing a change in appearance of the second image.

1 14. The method claimed in claim 5, wherein when the first and second images  
2 are photocopied, the printed pixels of specified dimensions in the first and  
3 second parts will become larger.

1 15. The method claimed in claim 14, wherein the change in size of the printed  
2 pixels of specified dimensions in the first and second parts is detectable by the  
3 unaided human eye.

1 16. The method claimed in claim 14, wherein the change in size of the printed  
2 pixels of specified dimensions in the first and second parts is detectable by the  
3 scanner.

1 17. The method claimed in claim 5, wherein the first image will not change in  
2 appearance when the first image is scanned or photocopied.

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